Object Storage Migration Service

Product Introduction

Issue 18

Date 2024-12-18

Security Declaration

Vulnerability

Huawei's regulations on product vulnerability management are subject to the *Vul. Response Process.* For details about this process, visit the following web page:
https://www.huawei.com/en/psirt/vul-response-process
For vulnerability information, enterprise customers can visit the following web page:
https://securitybulletin.huawei.com/enterprise/en/security-advisory

Contents

1 What Is OMS?

Object Storage Migration Service (OMS) is an online data migration service that helps you quickly, easily, and securely move data from object storage on other clouds to Object Storage Service (OBS) on Huawei Cloud.

📖 **NOTE**

> OMS supports migrations from AWS, Alibaba Cloud, Microsoft Azure, Baidu Cloud, Huawei Cloud, Kingsoft Cloud, UCloud, QingCloud, Qiniu Cloud, Tencent Cloud, and Google Cloud.

Typical application scenarios of OMS include:

- Object data migration: OMS helps you easily move web application data stored in object storage to Huawei Cloud.
- Cloud disaster recovery: OMS allows you to replicate object data to Huawei Cloud OBS for disaster recovery and backup.
- Object data restoration: OMS allows you to use data backups from other cloud service providers to quickly restore data to Huawei Cloud.

2 OMS Functions

Flexible Object Selection

- You can select files or folders to be migrated, or use an object list to choose what data will be migrated.
- You can also migrate objects generated after a specified time or with certain prefixes.

Automatic Task Splitting

- For a large-scale migration, you can **create a migration task group**, and OMS automatically splits the large migration task into multiple sub-tasks to maximize concurrency performance.
- You can easily manage migration tasks in groups.

Efficient Transmission

- Concurrent migration

  OMS supports concurrent migration of multiple objects.

- Archived data migration

  OMS can automatically restore archived data and migrate it to destination buckets.

- Support for custom domain names

  OMS can migrate data from source buckets configured with custom domain names.

- Object recording

  OMS records any objects that fail to be migrated and retransmits these failed objects later.

- Traffic limiting

  OMS allows you to limit the bandwidth available for the migration process in different time periods.

- Resumable transfer

  If the network is interrupted during migration, OMS allows you to manually restart the task and pick up where you left off. There is no need to start from scratch.

Result Notifications

Migration tasks may take a long time, and you can use the Simple Message Notification (SMN) service to obtain migration results by email, SMS message, or customized URL.

3 OMS Advantages

OMS has the following advantages:

- Ease of use

  All you need to do is sign in to the console, switch to the OMS page, create a migration task, and wait for the migration to complete.

- Solid security

  OMS secures your access with an access key ID (AK) and secret access key (SK) combination. You are authenticated before data transmission to ensure only you have access to your data.

  ☐ NOTE

  An AK/SK pair is required for authentication before you create a migration task. Once the task is created, the AK/SK pair will be encrypted, using the Advanced Encryption Standard (AES), and saved in the database. If the migration task is in a waiting status, the AK/SK pair will be temporarily saved for up to 72 hours. Once the migration task status changes to failed, succeeded, or paused, the AK/SK pair will be deleted permanently.

- Encrypted transmission

  OMS can use encrypted HTTPS connections for secure data transmission, but the source cloud service provider from which you will migrate data needs to support HTTPS as well.

  ☐ NOTE

  Not all cloud service providers support HTTPS.

- Encrypted storage

  OMS encrypts data upon migration to Huawei Cloud to make your data more secure.

4 How OMS Works

4.1 Overview

OMS uses data replication, synchronization, and transmission technologies to help you efficiently and securely migrate data from other cloud object storage systems to Huawei Cloud OBS.

4.2 Migration Process

Figure 4-1 shows how OMS migrates data.

Figure 4-1 How OMS works
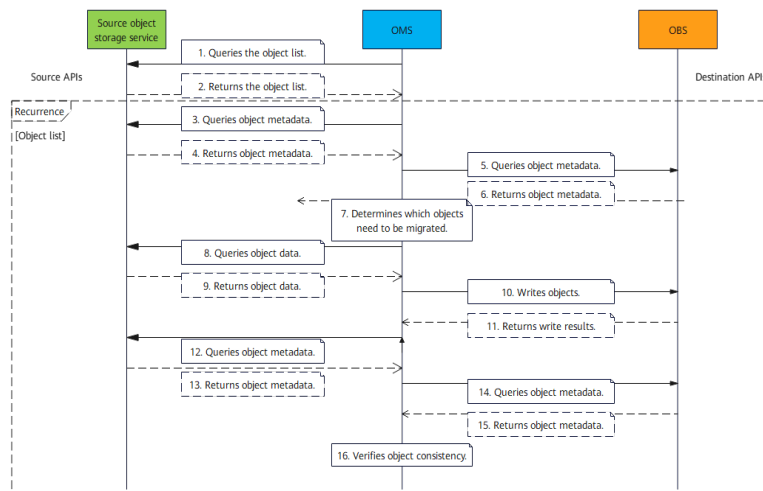
The migration process is as follows:

1. OMS queries the list of source objects.
2. The source object storage service returns the list of queried objects.
3. OMS queries the metadata of the source objects.
4. The source object storage service returns the metadata of the source objects.

5. OMS queries the metadata of the destination objects.

6. OBS returns the metadata of the destination objects.

7. OMS determines whether source objects need to be migrated based on metadata comparison results.

⚠️ **CAUTION**

If you choose to never or always overwrite destination objects with the same names as source objects, steps **5** to **7** will be skipped.

---

8. OMS queries the data of the source objects.

9. The source object storage service returns the data of the source objects.

10. OMS writes the data of the source objects into OBS.

11. OBS returns write results.

12. OMS queries the metadata of the source objects.

13. The source object storage service returns the metadata of the source objects.

14. OMS queries the metadata of the destination objects.

15. OBS returns the metadata of the destination objects.

16. OMS uses the metadata to verify data integrity and consistency.

17. Steps **3** to **16** are repeated to migrate all objects requested in **Step 1**.

18. Steps **1** to **17** are repeated to migrate all objects in the migration task.

4.3 Data Identification

Before starting a migration, OMS identifies source objects by obtaining their metadata, including the object size, last modification time, and location. Based on the information, OMS generates a proper migration configuration to ensure high efficiency and accuracy.

4.4 Data Migration

Based on the migration configuration, OMS starts to pull data from the source storage system. During the migration, OMS verifies data integrity and consistency to ensure that no data is lost or damaged. OMS also supports resumable data transfer. If the migration is interrupted due to exceptions such as network interruptions, OMS continues the transfer from exactly where it left off instead of starting from the scratch. This ensures data integrity and migration continuity.

4.5 Data Security and Integrity

For details, see **Data Protection**.

5 Migration Network

OMS can transfer data efficiently, securely, and reliably. It supports large file upload and download in segments and fast migration of a large amount of data. It also supports resumable data transfer. If a migration is interrupted due to exceptions such as network interruptions, OMS continues the transfer from exactly where it left off instead of starting from the scratch. This ensures data integrity and migration continuity.

Figure 5-1 Migration network
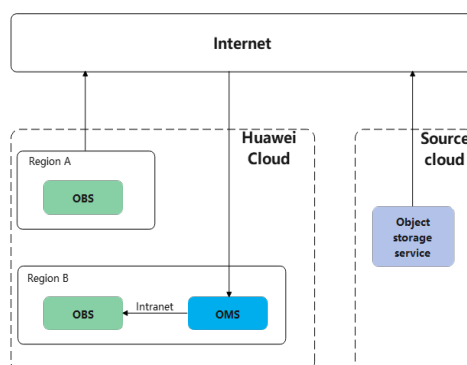
Scenario 1: Cross-Region or Cross-Cloud Migration

OMS reads objects from the source object storage system over the Internet and writes the objects to Huawei Cloud OBS. You must use OMS in the region where the destination bucket is located.

Scenario 2: Intra-Region Migration

OMS reads objects from the source bucket and writes the objects to the destination bucket in the same region over the intranet. You must use OMS in the region where the source and target OBS buckets are located.

6 Security

6.1 Identity and Access Management

Identity Authentication

You can access OMS through the OMS console, application programming interfaces (APIs), and software development kits (SDKs). No matter which method you choose, you actually use REST APIs to access OMS.

OMS can authenticate API requests using the AK/SK pairs of requesters. An authenticated request must contain a signature value that is calculated based on the encrypted AK/SK pair of the requester and the information carried in the request body. For details about access keys and how to obtain them, see **Access Keys**.

Access Control

You can use Identity and Access Management (IAM) to securely control access to your OMS resources. For more information, see **Creating a User and Assigning OMS Permissions**.

6.2 Data Protection

OMS ensures the security and integrity of data with:

- **Integrity verification**: For each transfer, OMS checks data integrity based on the object size and last modification time by default. For more information, see **How Does OMS Ensure Data Consistency Between the Source and Destination Buckets?**

- **Personal data encryption**: To prevent your personal data from being obtained for unauthorized use, OMS encrypts your personnel data before storing it, controls access to the data, and records operations performed on the data. For more information, see **Personal Data Protection**.

6.3 Risk Warning

OMS performs authentication and consistency check based on the APIs and protocols of the source and destination object storage services. MD5, SHA-1, CRC-64, and MD5-based HMAC algorithms are used during the authentication and check. Hash collisions on the source may result in that the data migrated is inconsistent with that you intend to migrate. We recommend that you verify the integrity of the source and destination data after the migration is complete.

6.4 Auditing and Logging

Auditing

Cloud Trace Service (CTS) is a log audit service for cloud security. It allows you to collect, store, and query resource operation records. You can use these records to perform security analysis, track resource changes, audit compliance, and locate faults.

To learn how to enable CTS, see **Enabling CTS**.

Figure 6-1 How CTS works
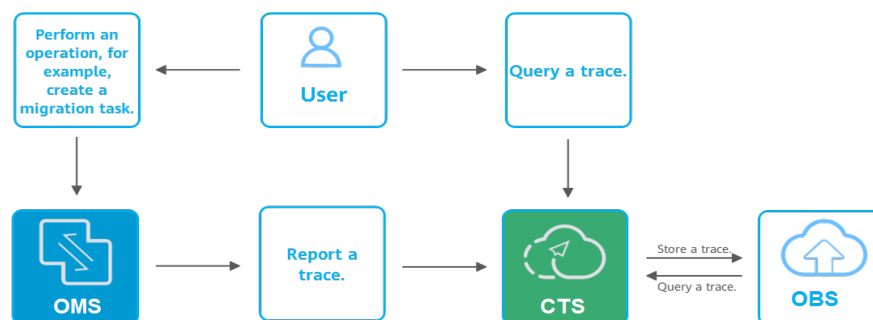
Logging

After you enable CTS and configure a tracker, CTS can record operations on your OMS resources.

For more details, see **Viewing CTS Traces**.

7 Notes and Constraints

Use of OMS is limited as follows.

Table 7-1 OMS constraints

Item	Constraint
Objects with multiple versions	By default, OMS migrates only the latest version of objects in source buckets.
Storage class of destination buckets	The storage class of destination buckets can only be standard or infrequent access. You can change the storage class of destination buckets after the migration is complete.
Migration network	Only migrations over the Internet are supported.

Metadata migration	Only Chinese characters, English characters, digits, and hyphens (-) can be migrated. Other characters cannot be migrated.
	
	● Chinese characters are URL encoded during the migration.
	
	    CAUTION
	    Chinese punctuation marks cannot be URL encoded during the migration. If metadata contains Chinese punctuation marks, the corresponding object will fail to be migrated.
	
	● **English characters, digits, and hyphens (-)** are directly migrated without code conversion.

Migration scope	A single migration task or migration task group can only migrate data of one bucket. If data of multiple buckets needs to be migrated, you need to create multiple tasks or task groups.

Item	Constraint
Symbolic links	Symbolic link files cannot be migrated. Symbolic link files will be recorded as failed, and the migration task will also be marked as failed. Other files can be migrated normally. If the migration path you specify is pointed to by a symbolic link, you need to: ● Enter the actual path when specifying the migration path.
Migration speed	Generally, OMS can migrate 10 TB to 20 TB of data per day. If you need a higher migration speed, you are advised to use **storage migration workflows** on MgC. MgC enables you to migrate data using dedicated, scalable migration clusters and up to **20 Gbit/s** of bandwidth. However, the speed depends on the number and size of source objects and the transmission distance over the Internet between the source and destination buckets. You are advised to create a migration task to test the migration speed. The maximum migration speed is five times the average speed of a single task because up to five tasks can be executed concurrently in a region by default. If you need to define a higher number of concurrent tasks, you can **create a storage migration workflow** on MgC.
Archived data	You need to restore archived data before the migration. Note that when there is archived data to be migrated, you need to: ● Create migration tasks after the restoration is complete. ● Configure a validity period for restored data based on the total amount of data to be migrated. This helps prevent migration failures because restored data becomes archived again during the migration. ● Pay your source cloud vendor for restoring archived data. To learn about the pricing details, contact your source cloud vendor.
Migration tasks	A maximum of five concurrent migration tasks are allowed for your account per region. **NOTE** If your destination regions are CN North-Beijing1 and CN South-Guangzhou, you can run up to 10 migration tasks concurrently.
	A maximum of 5,000 migration tasks are allowed for your account per region within a 24-hour period.
Migration task groups	A maximum of five concurrent migration task groups are allowed for your account per region. **NOTE** If your destination regions are CN North-Beijing1 and CN South-Guangzhou, you can run up to 10 migration task groups concurrently.

Item	Constraint
Synchronization tasks	Synchronization tasks share quotas with migration tasks and migration task groups, but enjoy a higher priority. A maximum of five concurrent synchronization tasks are allowed for your account per region.
Object list files	- An object list file cannot exceed 1,024 MB. - An object list file must be a .txt file, and its metadata **Content-Type** must be **text/plain**. - An object list file must be in UTF-8 without BOM. - Each line in an object list file can contain only one object name, and the object name must be URL encoded. - Spaces are not allowed in each line in an object list file. Spaces may cause migration failures because they may be mistakenly identified as object names. - The length of each line in an object list file cannot exceed 65,535 characters, or the migration will fail. - The **Content-Encoding** metadata of an object list file must be left empty, or the migration will fail.

Item	Constraint
URL list files	• A URL list file cannot exceed 1,024 MB. • A URL list file must be a .txt file, and its metadata **Content-Type** must be **text/plain**. • A URL list file must be in UTF-8 without BOM. • Each line in a URL list file can contain only one URL and one destination object name. • The length of each line in a URL list file cannot exceed 65,535 characters, or the migration will fail. • The **Content-Encoding** metadata of a URL list file must be left empty, or the migration will fail. • Spaces are not allowed in each line in a URL list file. Spaces may cause migration failures because they may be mistakenly identified as object names. • In a URL list file, each line uses a tab character (\t) to separate the URL and destination object name. The format is [*URL*][*Tab character*][*Destination object name*]. Only the Chinese and special characters in the source and destination object names must be URL encoded. For example: http://xxx.xxx.xxx.xxx.com/doc/thefile2.txt doc/thefile2.txt http://xxx.xxx.xxx.xxx.com/the%20file.txt the%20file.txt http://xxx.xxx.xxx.xxx.com/the%20file2.txt the+file2.txt http://xxx.xxx.xxx.xxx.com/doc/thefile.txt doc/thefile.txt **CAUTION** **The URL encoding starts from the second character after the domain name in a line. Do not encode the protocol header, domain name, or slash before or after the domain name. Otherwise, the format verification will fail.** In each line, use a tab character (Tab key on the keyboard) to separate the URL and the destination object name. Do not use spaces. In the preceding examples, after the files represented by the URLs are copied to the destination bucket, the objects are named **doc/thefile2.txt**, **the file.txt**, **the file2.txt**, and **doc/thefile.txt**. • URLs in the list file can be accessed using HEAD and GET requests.
Failed object list files	A maximum of 100,000 failed objects can be recorded in a failed object list file. **NOTE** If more than 100,000 objects fail to be migrated in a migration task, you are advised to rectify the fault based on the existing failed object list and perform the migration again.

8 OMS and Other Services

OMS can work with other cloud services to meet your requirements in different scenarios. **Table 8-1** lists the relationships between OMS and other services.

Table 8-1 Related services

Service	Interaction	Reference
OBS	OMS can migrate objects to OBS buckets on Huawei Cloud.	**Creating a Migration Task** **Creating a Migration Task Group**
Data Encryption Workshop (DEW)	OMS can use the Key Management Service (KMS) on DEW to encrypt the data migrated to Huawei Cloud OBS.	
SMN	OMS works with SMN to keep you abreast of migration results.	
Cloud Trace Service (CTS)	CTS records operations associated with OMS for query, audit, and backtrack.	**Viewing CTS Traces**

9 Privacy Statement

Read through this Privacy Statement before using OMS.

For completing migration tasks, we need to collect your personal data, including the AK/SK pair of your source cloud account, the Content Delivery Network (CDN) key, the AK/SK pair of your Huawei Cloud account, as well as your Huawei Cloud user ID, project ID, and account ID.

The preceding information is encrypted and stored securely only in the region or country you have selected. You can submit a service ticket to Huawei Cloud if you want to access, modify, or delete the above information.

Your Huawei Cloud user ID, project ID, and account ID will be deleted when you delete your account. The other information will all be automatically deleted after the migration is complete.

Huawei Cloud does not share, transfer, or disclose your information without your prior consent unless otherwise required.

You must ensure that your use of OMS complies with relevant laws and regulations. Huawei Cloud only provides the standard migration service and is not responsible for the legal compliance of your use.

10 Billing

Billing Mode

OMS is a free service. You pay for migration resources used (bandwidth and API calls). After the free period expires, you will be billed only for data migrated by OMS. This billing mode allows you to easily and flexibly estimate migration costs.

> ⚠️ **CAUTION**
>
> During the migration, the APIs of the object storage services on the source and destination platforms are called to upload and download data. You will be charged for the API requests generated as well as data download and upload. For details about the fees, see **API Requests** and **Data Download and Upload**.

Data Download and Upload

OMS needs to download data from source buckets and then upload the data to the destination OBS buckets.

- Any data download fees generated on the source platform are billed by the source cloud service provider. The total charges depend on the data size.

  > 📖 **NOTE**
  >
  > - To save money, you can subscribe to a Content Delivery Network (CDN) traffic package from the source cloud service provider, and enable the traffic limiting function of OMS to limit the traffic transmitted during peak hours.
  > - If the automatic restoration function of OMS is used, you need to pay for archive data restoration and retrieval.

- No fees are generated when data is uploaded to destination OBS buckets on Huawei Cloud.

- No traffic fees are generated for migration in the same region, regardless of the migration is performed within the same account or across accounts.

API Requests

Before the migration, OMS compares objects in source and destination buckets. Then, OMS downloads objects from the source bucket and then uploads them to

the destination bucket. After the migration, OMS verifies the objects that are migrated.

All these operations generate API requests. There are basic requests and common requests (for listing objects, uploading failed object lists, retrying upon network exceptions, and automatic restoration). The number of API requests depends on the scenario.

- If there is no object in the destination bucket with the same name as one in the source bucket, the source object will be migrated.
  - Source bucket: 2 HEAD and 1 GET requests
    - One HEAD request is used to check if the object exists in the source bucket and compare the object with those in the destination bucket.
    - One GET request is used to download the object from the source bucket.
    - One HEAD request is used to verify consistency.
  - Destination bucket: 2 HEAD and 2 PUT requests
    - One HEAD request is sent to check whether the object already exists in the destination bucket.
    - One PUT request is used to upload the object to the destination bucket.
    - One PUT request is used to configure the object storage class after the migration is complete.
    - One HEAD request is used to verify consistency.
- If there is an object in the destination bucket with the same name and size as one in the source bucket, but the last modification time of the destination object is later than that of the source object, the source object will not be migrated.
  - Source bucket: 1 HEAD request
    - One HEAD request is used to check if the object exists in the source bucket and compare the object with those in the destination bucket.
  - Destination bucket: 1 HEAD request
    - One HEAD request is sent to check whether the object already exists in the destination bucket.
- If there is an object in the destination bucket with the same name as one in the source bucket, but the object has a different size or its last modification time is earlier than that of the source object, the source object will be migrated, and the migrated object will overwrite the destination object.
  - Source bucket: 2 HEAD and 1 GET requests
    - One HEAD request is used to check if the object exists in the source bucket and compare the object with those in the destination bucket.
    - One GET request is used to download the object from the source bucket.

■ One HEAD request is used to verify consistency.

– Destination bucket: 2 HEAD and 2 PUT requests

■ One HEAD request is sent to check whether the object already exists in the destination bucket.

■ One PUT request is used to upload the object to the destination bucket.

■ One PUT request is used to configure the object storage class after the migration is complete.

■ One HEAD request is used to verify consistency.

NOTICE

Any source object larger than 50 MB will be uploaded in multiple parts with each part of up to 50 MB, and each part will generate their own GET and PUT requests.

For example, a 200 MB object will be divided into four parts, so there will be four GET requests needed to down load them from the source bucket, four PUT requests needed to upload them to the destination bucket, and one additional PUT request for combining them at the end. That means a 200 MB object generates the following requests:

● Source bucket: 2 HEAD and 4 GET requests

● Destination bucket: 2 HEAD and 5 PUT requests (1 PUT for each of the four parts and 1 combination PUT)

📖 **NOTE**

The actual price of an API request depends on the cloud service provider. For details about the price of the API requests of Huawei Cloud OBS, see **Product Pricing Details**.

How to Estimate Migration Fees

Generally, the migration fees can be estimated using the following formula:

Migration fee = Number of source API requests x Unit price of source API requests + Number of destination API requests x **Unit price of destination API requests** + Total size of source objects x Unit price of outbound traffic on the source platform

● Number of source API requests = (Total number of objects/1,000) + Number of objects x 3

● Number of destination API requests = Total number of objects x 4

● Unit price of outbound traffic on the source platform: determined by the source cloud service provider

NOTICE

- The fees of the destination API requests are billed by Huawei Cloud. The fees of the source API requests and the outbound traffic on the source platform are billed by the source cloud service provider.
- Even if an object is skipped during the migration, API requests are still generated on the source platform and Huawei Cloud to check whether the object exists and compare it with other objects. You need to pay for these API requests.

11 Permissions

You can free use Identity and Access Management (IAM) to manage OMS permissions and assign different permissions to your employees, to ensure secure access to your resources.

You can create IAM users for your employees, and assign permissions to these users to control their access to specific resources. For example, you can create IAM users for software developers and assign specific permissions to allow them to use OMS resources but disallow them to delete the resources or perform any high-risk operations.

If your Huawei Cloud account does not need individual IAM users for permissions management, you can skip this section.

For more information about IAM, see **IAM Service Overview**.

OMS Permissions

By default, new IAM users do not have any permissions. To assign permissions to these new users, you need to add them to one or more groups, and attach permissions policies or roles to these groups. Users inherit permissions from the groups to which they are added and can perform specified operations on cloud services.

📖 NOTE

When accessing OMS, the users need to switch to the authorized region.

When assigning OMS permissions to a user group, you need to specify region-specific projects where the permissions will take effect. If you select **All projects**, the permissions will take effect for the user group in all region-specific projects.

Because services on Huawei Cloud interact with each other, the OMS roles are dependent on the roles of other services. Therefore, when assigning OMS roles to a user, you need to also assign the dependent roles to the user for the OMS permissions to take effect.

Table 11-1 lists all system-defined roles of OMS.

Table 11-1 System-defined permissions for OMS

Role Name	Description	Type	Dependency
OMS Administrator	Full permissions for OMS	System-defined role	Dependent on the **OBS Administrator** policy.

Source Permissions

📖 NOTE

> The following uses an OBS bucket on Huawei Cloud as the source bucket. If your source bucket is on another cloud service platform, contact engineers of the cloud service platform.

The source account needs the permissions for:

- Listing buckets
- Obtaining bucket locations
- Listing objects
- Obtaining object metadata
- Obtaining object content

For details about how to obtain these permissions, see **Source Permissions**.

Destination Permissions

The destination account needs the permissions for:

- Listing buckets
- Obtaining bucket locations
- Listing objects
- Obtaining object metadata
- Obtaining object content
- Listing uploaded parts
- Restoring archive objects

For details about how to obtain these permissions, see **Destination Permissions**.

12 Features

12.1 Migration Task

Scenarios

If there is less than 3 TB of data or less than 5 million objects in a source bucket, you can create a migration task to quickly migrate the source data.

Supported Migration Sources

The following migration sources are supported:

- Huawei Cloud
- AWS
- Alibaba Cloud
- Microsoft Azure
- Tencent Cloud
- Google Cloud
- Qiniu Cloud
- QingCloud
- Baidu Cloud
- Kingsoft Cloud
- UCloud
- HTTP/HTTPS data sources

Related Operations

Operation	Description
Creating a Migration Task	You can create a migration task to migrate your source data.

Operation	Description
Viewing a Migration Task	You can view the details and the migration progress of a migration task at any time.
Managing a Migration Task	You can pause, resume, restart, or delete a migration task.

12.2 Migration Task Group

Scenarios

If there is more than 3 TB of data or more than 5 million objects to migrate in a source bucket, you can create a migration task group to migrate the source data quickly. The system will group the source objects into multiple sub-tasks for concurrent migrations.

Supported Migration Sources

The following migration sources are supported:

- Huawei Cloud
- AWS
- Alibaba Cloud
- Microsoft Azure
- Tencent Cloud
- Google Cloud
- Qiniu Cloud
- QingCloud
- Baidu Cloud
- Kingsoft Cloud
- UCloud
- HTTP/HTTPS data sources

Related Operations

Operation	Description
Creating a Migration Task Group	You can use a migration task group to manage multiple sub-tasks that are automatically split from a large migration task.
Viewing a Migration Task Group	You can view the details and the migration progress of a migration task group at any time.

Operation	Description
Managing a Migration Task Group	You can pause, resume, or restart tasks in a migration task group.

12.3 Synchronization Task

Scenarios

A synchronization task allows you to proactively synchronize new or modified objects in a source bucket. You need to configure an event trigger for the source object storage service. When a source object is added or modified, the source object storage service calls the synchronization API of OMS through a function workflow, and the API will synchronize the object to the destination OBS bucket on Huawei Cloud.

NOTE

The synchronization task feature is available only in CN North-Beijing4 and CN East-Shanghai1.

Supported Migration Sources

The following migration sources are supported:

- Huawei Cloud
- AWS
- Alibaba Cloud
- Microsoft Azure
- Tencent Cloud
- Google Cloud
- Qiniu Cloud
- QingCloud
- Baidu Cloud
- Kingsoft Cloud
- UCloud

Related Operations

Operation	Description
Creating a Synchronization Task	You need to enter the AK/SK pairs required for accessing the source and destination buckets, and configure synchronization task parameters.

Operation	Description
Configuring a Synchronization Request on the Source Platform	After you create a synchronization task, you need to configure the source object storage service to request OMS to migrate newly added and modified source objects. To do so, you can use a message notification or function service on the source platform.
Monitoring a Synchronization Task	After a synchronization task is started, you can view the synchronization progress and details at any time.

13 Personal Data Protection

To prevent your personal data (source AK/SK pair, source CDN key, and destination AK/SK pair) from being obtained for unauthorized use, OMS encrypts your personnel data before storing it, controls access to the data, and records operations performed on the data.

Personal Data

Table 13-1 lists the personal data collected by OMS for authentication.

Table 13-1 Personal data

Personal Data	When Collected	Can Be Modified	Mandatory/ Optional	When Deleted
Source AKs	Entered on the GUI	No	Optional only in HTTP/ HTTPS data source migrations	● For a migration task or migration task group, the system automatically clears the personal data after the task is executed (regardless it succeeds or fails) or you pause the task. ● For a synchronization task, the system retains the personal data after the task is created unless you pause the task.
Source SKs	Entered on the GUI	No		
Source CDN keys	Entered on the GUI	No	Mandatory only in CDN migrations	
Destination AKs	Entered on the GUI	No	Mandatory	
Destination SKs	Entered on the GUI	No	Mandatory	

Storage Method

OMS encrypts and stores the following sensitive personal data:

● Source AK/SK pairs
● Source CDN keys
● Destination AK/SK pairs

Access Control

Only whitelisted personnel are allowed to access your encrypted personal data stored in the OMS database.

API Constraints

When you call OMS APIs, an IAM token is required for authentication.

14 Change History

Released On	Description
2024-03-22	This issue is the seventeenth official release. • Added **How OMS Works**. • Added **Migration Network**.
2023-10-17	This issue is the sixteenth official release. Updated **API Requests** in the billing section.
2023-06-20	This issue is the fifteenth official release. Added restrictions on the migration scope, migration speed, and archived data in **Notes and Constraints**.
2023-06-05	This issue is the fourteenth official release. Added supported storage classes of destination buckets in **Notes and Constraints**.
2023-04-25	This issue is the thirteenth official release. Updated **Notes and Constraints**.
2022-09-27	This issue is the twelfth official release. Added **Security**.
2022-08-02	This issue is the eleventh official release. Updated **OMS Functions**. Updated **Permissions**.
2021-10-09	This issue is the tenth official release. Added "How to Estimate Migration Fees" to **Billing**.
2021-04-23	This issue is the ninth official release. Optimized **Notes and Constraints**.
2021-03-18	This issue is the eighth official release. Added **Features**.

Released On	Description
2021-03-10	This issue is the seventh official release. Optimized **Permissions**.
2021-01-14	This issue is the sixth official release. Optimized **Billing**.
2020-08-06	This issue is the fifth official release. Optimized **Billing**.
2020-04-01	This issue is the fourth official release. Added **Billing**.
2020-02-10	This issue is the third official release. Added **Permissions**.
2019-08-31	This issue is the second official release. ● Updated **OMS Functions**. ● Updated **OMS and Other Services**.
2019-07-25	This issue is the first official release.